

REMARKS/ARGUMENTS

In the Office Action mailed 19 May 2008 (hereinafter, "Office Action"), claims 1-16, 18-28, and 38-43 stand rejected under 35 U.S.C. § 102. Claim 17 stands rejected under 35 U.S.C. 103. Claims 1, 11, 24, and 38 have been amended. Applicant respectfully responds to the Office Action.

I. Claims 1-16, 18-28, and 38-43 Rejected Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-16, 18-28, and 38-43 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,662,681 to Nash et al. (hereinafter, "Nash"). Applicant respectfully traverses this rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." (M.P.E.P. § 2131 (citing Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987))). "The identical invention must be shown in as complete detail as is contained in the ... claim." (Id. (citing Richardson v. Suzuki Motor Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989))). In addition, "the reference must be enabling and describe the applicant's claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention." (In re Paulsen, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994)).

Applicant respectfully submits that the claims at issue are patentably distinct from Nash. Nash does not disclose all of the subject matter in these claims.

Claim 1 has been amended to recite "the mechanical advantage comprises a ratio greater than 1:1 between an output force used to move the sealing plug and the anchor together and an

input force applied to the closure device.” Support for this amendment may be found in Applicants’ specification, for example, page 9, line 23 – page 10, line 7. Nash does not disclose this subject matter.

Applicant initially notes, as cited in claim 1, that the mechanical advantage is the ratio of the output force produced by a mechanism or device to the applied input force. In other words, it is the factor by which the mechanism multiplies the force being applied. (See Specification, page 10, lines 2-3.) If this ratio is greater than 1:1, the output force of the mechanism is greater than the input force. The ratio is usually calculated by dividing the distance over which the force is applied by the distance over which the load is moved. A mechanism or device is said to provide or have a mechanical advantage if this ratio is greater than 1:1, or one. See http://en.wikipedia.org/wiki/Mechanical_advantage for more information about mechanical advantage and for examples of how to calculate the mechanical advantage.

The Examiner asserts that “the applicant has not provided a special definition for the term ‘mechanical advantage’ in the original filed specification. That is, the specification does not state that mechanical advantage provided by the block and tackle is a ratio of the output force produced by a mechanism or device to the applied input force”. (Office Action, page 9.) Applicant respectfully disagrees with this assertion.

Applicants’ specification states:

By looping the second filament 145 multiple times between the cap 105 and the plate 165, a four to one (4:1) [ratio] mechanical advantage is created on the plate 165. The mechanical advantage of the block and tackle 160 thus multiplies an initial manual force when applied proximally via the tab 115. Therefore, in the illustrated embodiment, when the tab 115 is pulled proximally or away from the cap 105 with an initial outward force, the second filament 145 traverses the plate 165 and cap 105,

generating a force on the plate 165 and therefore the first filament 175 of approximately four times the initial outward force placed on the tab 115.

Applicants' specification, page 9, line 23 – page 10, line 7.

The above-cited passage of Applicants' specification states that a 4:1 ratio is a mechanical advantage. In addition, Applicants' specification clearly states that “[t]he mechanical advantage of the block and tackle . . . multiplies an initial manual force [*i.e.*, input force].” (*Id.*) If the initial manual force is multiplied (by a factor greater than one) “a ratio greater than 1:1” between the output force and the initial manual force is created. Further, as stated above, “when the tab 115 is pulled . . . with an initial outward force [*i.e.*, input force], the second filament 145 traverses the plate 165 and cap 105, generating a force [*i.e.*, output force] . . . approximately four times the initial outward force.” (*Id.*) Thus, it is clear that Applicants' specification provides support for a mechanical advantage to “comprise[] a ratio greater than 1:1 between an output force used to move the sealing plug and the anchor together and an input force applied to the closure device.”

The closure device of Nash et al. does not provide a “mechanical advantage [that] comprises a ratio greater than 1:1 between an output force used to move the sealing plug and the anchor together and an input force applied to the closure device” as required by claim 1 of the instant application. Nash describes pulling the filament 34 rearward to pull the locking member 36 and the anchor member 32 together. This action sandwiches the sealing plug 30 between the locking member 36 and the anchor member 32. A careful examination of Nash et al. shows that when the anchor member 32 is held in position, each unit of distance that the filament 34 is pulled rearward, the locking member 36 moves the same amount of distance towards the anchor. Thus, the ratio of the output force to the input force is 1:1. As such, Nash does not disclose “the

mechanical advantage comprises a ratio greater than 1:1 between an output force used to move the sealing plug and the anchor together and an input force applied to the closure device" as recited in amended claim 1. (Emphasis added.)

In Nash, the combined configuration of the filament 34, anchor 32, and the locking member 36 is similar to the combination of a rope that extends through a pulley that is anchored to a ceiling and is hooked to a load at the other end. The rope is analogous to the filament 34, the pulley anchored to the ceiling is analogous to the anchor member 32 and the load is analogous to the locking member 36. The user pulls the rope a certain distance and the load moves the same distance. The exact same movement occurs when the filament 34 of Nash is pulled. Neither of these configurations provides a "mechanical advantage [that] comprises a ratio greater than 1:1 between an output force used to move the sealing plug and the anchor together and an input force applied to the closure device."

In view of the foregoing, Applicant respectfully submits that claim 1 is patentably distinct from Nash. Accordingly, Applicant respectfully requests that the rejection of claim 1 be withdrawn.

Claims 2-10 depend either directly or indirectly from claim 1. Accordingly, Applicant respectfully requests that the rejection of claims 2-10 be withdrawn.

Claims 11, 24, and 38 have been amended with subject matter similar to the amendment described above in relation to claim 1. As such, Applicant submits that claims 11, 24, and 38 are patentably distinct from Nash for at least the same reasons as those provided above regarding claim 1. Accordingly, Applicant respectfully requests that the rejection of claims 11, 24, and 38 be withdrawn.

Claims 12-16 and 18-23 depend either directly or indirectly from claim 11. Claims 25-28 depend either directly or indirectly from claim 24. Claims 39-43 depend either directly or indirectly from claim 38. Accordingly, Applicant respectfully requests that the rejection of claims 12-16, 18-23, 25-28, and 39-43 be withdrawn.

II. Claim 17 Rejected Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claim 7 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nash. Applicant respectfully traverses the rejection.

The factual inquiries that are relevant in the determination of obviousness are determining the scope and contents of the prior art, ascertaining the differences between the prior art and the claims in issue, resolving the level of ordinary skill in the art, and evaluating evidence of secondary consideration. (KSR Int'l Co. v. Teleflex Inc., 550 U.S. ___, 2007 U.S. LEXIS 4745, at **4-5 (2007) (citing Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17-18 (1966))). To establish a *prima facie* case of obviousness, the prior art references “must teach or suggest all the claim limitations.” (M.P.E.P. § 2142.) Moreover, the analysis in support of an obviousness rejection “should be made explicit.” (KSR, 2007 U.S. LEXIS 4745, at **37.) “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (Id. (citing In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006))).

Applicant respectfully submits that the claim at issue is patentably distinct from the cited reference. Nash does not disclose, teach, or suggest all of the subject matter in this claim.

Claim 17 depends indirectly from claim 11. Accordingly, Applicant respectfully requests that the rejection of claim 17 be withdrawn.

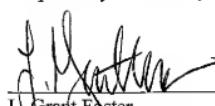
CONCLUSION

Applicant respectfully submit that the present Application is in condition for allowance. Applicant requests reconsideration and allowance of the pending claims. The Examiner is invited to contact the undersigned by telephone if the Examiner needs anything or if a telephone interview would advance the prosecution of the present application.

Applicant respectfully put the Patent Office and all others on notice that all arguments, representations, and/or amendments contained herein are only applicable to the present patent application and should not be considered when evaluating any other patent or patent application including any patents or patent applications which claim priority to this patent application and/or any patents or patent applications to which priority is claimed by this patent application.

Respectfully submitted,

Date: 15 AUGUST 2008


Grant Foster
Registration No. 33,236